

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A method for observing the electrical activity of a patient by using a medical monitoring system, in which method the changes in the electric activity of a patient are observed, and the functions of a patient are measured, said method comprising the steps of: ~~characterized in that by~~

measuring the electric activity of a patient comprising at least two of the following functions simultaneously by means of one piece of measuring equipment; a 5-lead electrocardiogram (EKG), an -and/or-enlargement to a 12-lead electrocardiogram, an electroencephalogram (EEG), and an -and/or-impedance cardiograph signal (IKG)-is taken by means of one piece of measuring equipment.

Claim 2 (currently amended): The method according to claim 1, wherein characterized in that—10 conductors are used for the measurement observation—of the patient's electrocardiogram (EKG), electroencephalogram (EEG) and impedance cardiograph signal (IKG), and further including the step of selecting the conductor configuration ~~is selected~~ based on the measurement.

Claim 3 (currently amended): The method according to claim—1 16, wherein characterized in that—when measuring the 12 lead electrocardiogram (EKG), the selector switch (K) is turned into a first position-I.

Claim 4 (currently amended): The method according to claim—1 16, wherein characterized in that—when measuring the electroencephalogram (EEG) and the 5 lead ECG, the selector switch (K) is tuned into a second position-II.

Claim 5 (currently amended): The method according to claim ~~1~~ 16, wherein ~~characterized in that~~ when measuring the impedance cardiograph signal (IKG) and the 5 lead ECG, the selector switch (K) is turned into a third position ~~III~~.

Claim 6 (canceled)

Claim 7 (currently amended): The method according to claim 1, further including the step of measuring ~~characterized in that besides the EEG, also the electric activity of the muscles in the facial region are being monitored (EMG) when the measured electrical activity is an EEG.~~

Claim 8 (currently amended): The method according to claim 1, further including the step of calculating ~~characterized in that from the observed signals, an index describing the depth of the anesthesia is calculated~~ from the measured electrical activity.

Claim 9 (currently amended): The method according to claim 1, further defined as using electrodes to measure the electrical activity and ~~characterized in that the electroencephalogram measurement channels (EEG) use~~ uses a common ~~the same~~ neutral electrode with the electrocardiogram measurement channels (EKG).

Claim 10 (currently amended): The method according to claim 1, further defined as using electrodes to measure the electrical activity and, from an ~~characterized in that based on the impedance relations of the electrodes, the~~ estimating a configuration of the electrodes ~~is estimated.~~

Claim 11 (currently amended): The method according to claim 1, further defined as deriving ~~characterized in that from a 5 lead electrocardiogram (EKG), a 3-lead~~

electrocardiogram (EKG) and a 2-lead electroencephalogram (EEG) ~~are derived from a 5-~~  
lead electrocardiogram (EKG).

Claim 12 (currently amended): A system for a medical monitoring system which comprises

- signal conductors which are connected, according to the standard placement of electrodes, to the measuring electrodes (RA, LA, RL, LL, V<sub>1</sub>, V<sub>2</sub>, V<sub>3</sub>, V<sub>4</sub>, V<sub>5</sub>, V<sub>6</sub>) adapted to be attached to the patient (P); ~~and which each signal conductor comprises a first conductor apparatus; and~~

- measuring equipment which comprises electrocardiogram (EKG), electroencephalogram (EEG) and impedance cardiograph (IKG) signal equipment; and ~~characterized in that the equipment comprises~~

- a selector switch (K) for selecting the measurement type so that ~~in-the~~ a first position (I) of the switch, the signal conductors are connected to the 12 lead electrocardiogram equipment (EKG), ~~in-the~~ a second position (II) of the switch, the precordial conductors are connected to the electroencephalogram equipment (EEG), and ~~in-the~~ a third position (III) of the switch, the precordial signal conductors are connected to the impedance cardiograph signal equipment (IKG);

wherein the selector switch and the signal conductors are further arranged to enable the measurement of at least two of the following electrical characteristics simultaneously: electrocardiogram (EKG), electroencephalogram (EEG) and/or impedance cardiograph signal (IKG).

Claim 13 (currently amended): The system according to claim 12, characterized in that the system comprises a preamplifier unit having amplifier channels, said amplifier monitoring ~~which may be used to monitor the~~ 12 lead electrocardiogram (EKG), ~~or-the~~ a limb or full-length impedance cardiograph signal (IKG) of ~~the~~ a 5-lead electrocardiogram

(EKG) so that the amplifier channels of ~~the~~ chest wiring of the 12-lead electrocardiogram (EKG) transfer to monitor the limb or full-length impedance cardiograph signal (IKG).

Claim 14 (currently amended): The system according to claim 12, wherein characterized ~~in that~~ the system comprises a preamplifier unit in which the configuration of the electrodes is estimated based on the impedance relations of the electrodes.

Claim 15 (currently amended): A method for ~~a medical monitoring system~~ observing the electrical activity of a patient by using a medical monitoring system, in which method ~~the changes in the electrical activity and the functions of a patient are observed~~, said method comprising the step of using characterized in that 10 patient electrode conductors are used to monitor either the a 12 lead electrocardiogram (EKG) or a of the 5 lead EKG and, simultaneously at least one of the following: alternatively, the electroencephalogram (EEG) or the impedance cardiogram (IKG) in addition to the 5-lead EKG.

Claim 16 (new): The method according to claim 1, further including the step of selecting the electrical functions to be measured by using a three position selector switch (K).

Claim 17 (new): The method according to claim 1 including the step of amplifying signals comprising the measured electrical activity.

Claim 18 (new): The method according to claim 17 including the step of further amplifying at least selected ones of the signals.